

Fig. (5a) and (5b) - De-epithelisation of left labial mucosa and right labial mucosa respectively.

The tissue thickness was approximately one mm. The remaining closure was completed with interrupted sutures using 3-0 silk (Fig 6). Postoperative instructions were then given. A soft diet was recommended for 24 hours. Patients were asked to avoid high smiling for 1 week, to avoid pulling on the lip to examine or display the wound, and to avoid brushing in the area for three days. Nonsteroidal anti-inflammatory drugs and antibiotic were recommended for pain control, and cold packs were given to patients to be used in the first 24 hours following surgery.

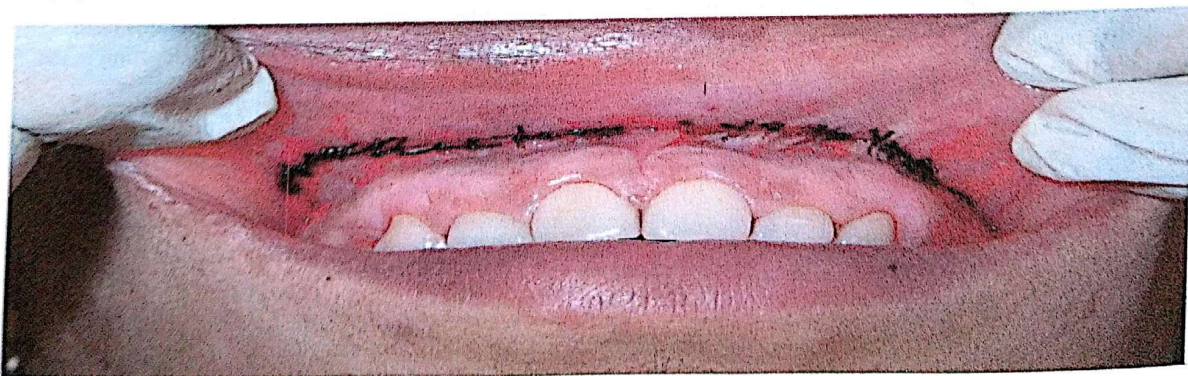


Fig. 6- Final suturing of upper incision border to lower incision border using silk with simple interrupted suture technique.

RESULTS

Patient was seen the day after surgery for follow-up. Periodic follow-up occurred for suture removal after seven days, when necessary and for photographs (Fig 7a and 7b). The mean preoperative gingival display on smiling was five to seven mm. The corresponding mean postoperative measurement was 1.5 to 2 mm below the gingival zenith. The patient was fully satisfied and was happy with new appearance. Follow up after three months showed two to three mm of relapse (Fig 8).

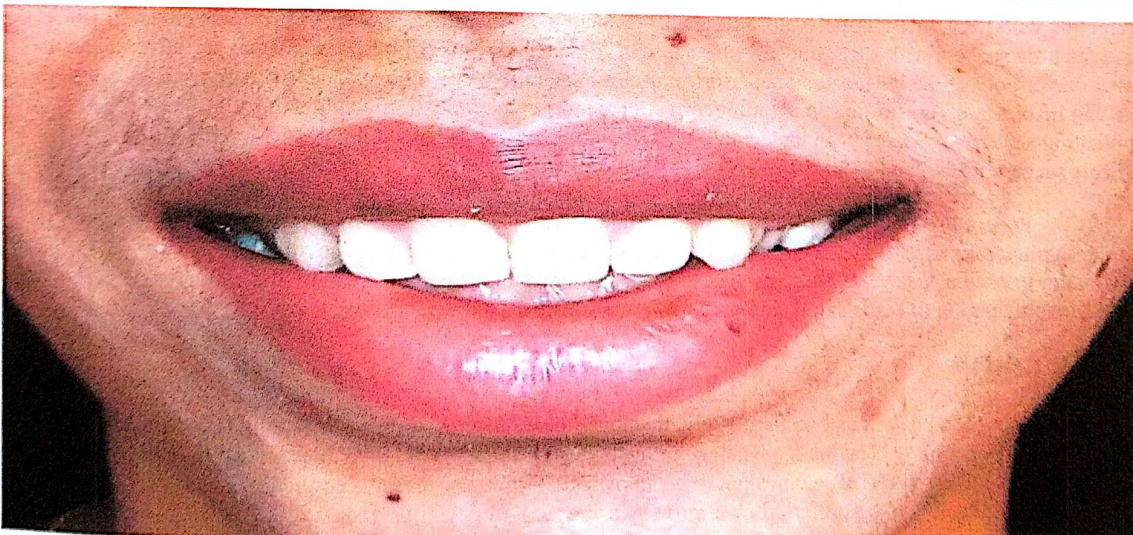


Fig. (7a) and (7b) - 7 day postoperative picture after suture removal. Fig. 7a- Healing after 7days. Fig 7b- Final corrected lip position after 7 days following surgery.

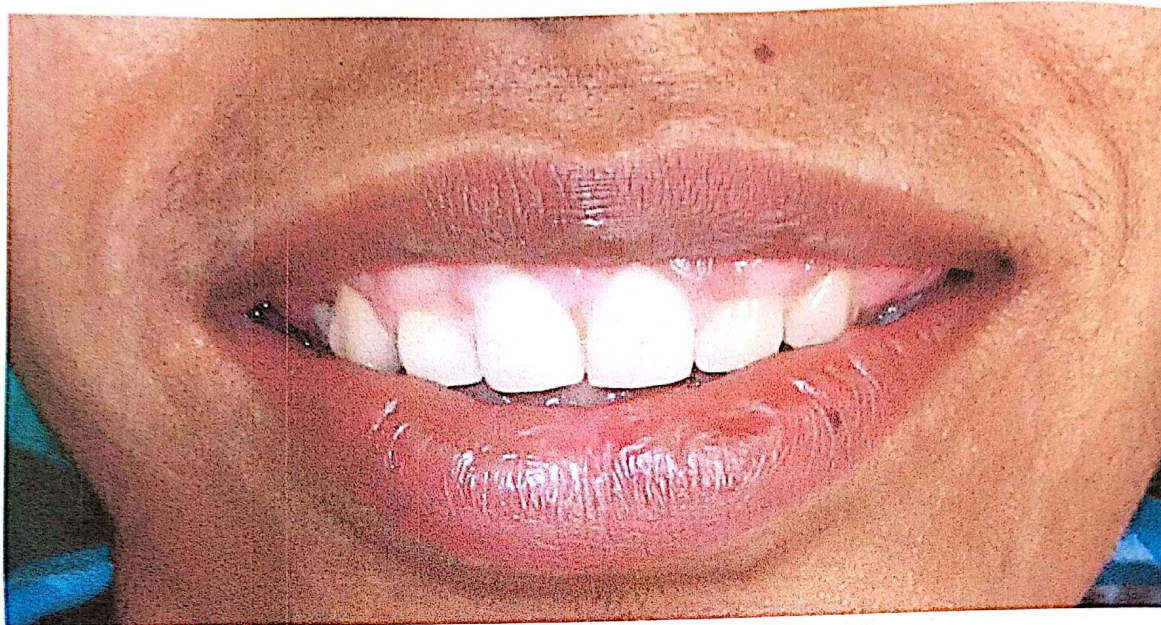


Fig. 8- Clinical picture of follow up after 3 months showing 2-3 mm of relapse in final corrected lip position.

DISCUSSION

This case report presents the conservative management of EGD with LRS, including a novel reversible trial repositioning prior to definitive treatment. Successful treatments with variations of LRS were first described in the medical literature in 1973 by Rubinstein and Kostianovsky.^[8] In 1979, Litton and Fournier described gummy smile correction with LRS, including elevator muscle detachment in cases with a short upper lip.^[9] Miskinyar, in 1983, reported little success with LRS, but saw no relapse in 27 patients treated with myectomy and partial resection of either one or both of the levator labii superioris muscles bilaterally.^[10] Ellenbogen and Swara reported success in limiting lip elevation on smiling (maximum correction, 6 mm) by partially transecting the lip elevator muscles and implanting a silicone spacer.^[11] In the dental literature, multiple authors have presented case reports of single patients successfully treated with LRS.^[5, 7]

Patient had mild discomfort for 24 to 48 hours, with no serious side effect. Possible complication includes unilateral paraesthesia, and mucocele. Relapse over the long term cannot be ruled out, and future research should aim to evaluate stability of the result. Here, the authors demonstrate positioning of the lip slightly below the zenith, in anticipation of some small amount of relapse following complete healing.^[12]

CONCLUSION

Lip repositioning can be seen as excellent alternative to the more costly and time-consuming treatment available for excessive gingival display. The main advantage of the LRS that it consist of reversible surgical trial whereby patient can preview the result. Thus LRS comes out to be innovative, minimally invasive aesthetic surgical procedure for managing EGD and should be preferred over more invasive surgeries.

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